

REMARKS

In the Office Action dated September 3, 2009, claims 1-75 were pending and under examination. In the Office Action, claims 1-75 were rejected.

In response, claim 7 is canceled without prejudice. Claims 1, 6, 27, 30, 54-55 and 68 are amended. Accordingly, claims 1-6 and 8-75 are pending in the present application. No new matter is added.

Applicant responds to the points raised in the Office Action as follows.

***Claim Rejections - 35 U.S.C. § 112***

The Office Action indicates that claims 6, 30-38, 42-44 and 66-74 are rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. Applicant respectfully traverses the rejection.

Regarding claims 6 and 30, the Office Action indicates that "the original specification on pages 9-10 does not disclose that the falling number of teff grain is stable for at least 2-3 weeks." Applicant has amended claims 6 and 30 to recite that "the falling number of the flour is stable for at least 2-3 weeks." The recitation in amended claims 6 and 30 is supported in the specification in the paragraph spanning page 9, line 6 - page 10, line 2. Accordingly, claims 6 and 30, and claims 31-38, 42-44 and 66-74, which depend from claim 30, are supported in the original application as filed, and therefore comply with the written description requirement. Applicant therefore respectfully requests that the rejection of claims 6, 30-38, 42-44 and 66-74 under 35 U.S.C. § 112, first paragraph be reconsidered and withdrawn.

***Claim Rejections - 35 U.S.C. § 103***

The Office Action indicates that claims 1, 4, 8-10, 15-23, 27, 29, 39-41, 45-48 and 62-65 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kindie et al. (US Pat. Pub. No. 2003/0143309, "Kindie") in view of Haarasilta et al. (US Pat. No. 5,176,927, "Haarasilta"). The Office Action indicates that additional evidence is relied upon from the documents identified as Eragrain Teff, Teff bv and Teff - nutrition data. Applicant respectfully traverses the rejection.

Amended claim 1 of the present application reads as follows.

A flour of a grain belonging to the genus *Eragrostis*, comprising:

a falling number of the grain at a moment of grinding being at least 250; and

the grain being ground to a flour with a particle size to permit at least 85% of the flour to pass through a sieve with a pore size of at most 150 microns.

The Office Action states that Kindie "does not disclose that 'the falling number of the grain at the moment of grinding is at least 250'." The Office Action also indicates that the Haarasilta reference discloses choosing a specific falling number range of a given flour, and indicates that an obvious combination of the Kindie reference with the Haarasilta reference would make obvious the invention recited in claim 1.

A review of the Haarasilta reference reveals that grains and flours containing gluten are discussed, but that no grains or flours that are gluten-free are discussed or suggested. That is, the entire disclosure of Haarasilta appears to be directed to baked goods that are made from grains or flours that contain gluten, such as rye, wheat or barley. As stated in the specification of the present application, *Eragrostis* can be used

to produce gluten-free flour, as well as gluten-free products. See, page 3, lines 15-29 of the present specification. In particular, the present disclosure is directed to gluten-free flours and products that can be used or consumed by persons having gluten intolerance. The disclosure by Haarasilta accordingly does not pertain to gluten-free flours and products, and does not permit the presently disclosed advantages such as providing flours and products that can be consumed by persons having gluten intolerance.

The Office Action further indicates that Haarasilta discloses that "a specific falling number range of a given flour may be chosen (or optimized) depending on the production process variables (such as process duration or process temperature) for a chosen and product." However, the processes described in Haarasilta are specific to flours that contain gluten and specific to the processes used to make dough from the specified flours. For example, Haarasilta indicates that rye flour with a lower falling number may be used to produce sour, thick crispbread, and that for making rye biscuits, flour with a high falling number should be used. Haarasilta also states that in addition to falling number, other variables are important, like protein content and moisture content. Therefore, it would be apparent from the Haarasilta reference that the choice or selection of a flour with a given falling number would depend on a number of variables, including the composition of the flour itself.

In addition, as indicated in the accompanying declaration under 37 C.F.R. § 1.132 by Johannes Turkensteen ("the Declaration"), prior to the present invention, the falling number for Teff flour has not been identified as a result effective variable to permit Teff flour to be used to make high quality

baked goods. Even if the falling number of Teff flour were identified as a result effective variable for producing high quality baked goods prior to the present invention, the knowledge or ability to produce Teff flour with a sufficiently high falling number was previously lacking among those of ordinary skill in the relevant art. That is, although falling numbers may have been used to predict quality of baked goods with flours that contain gluten, the same measure could not be directly applied to flours that were gluten-free, and in particular was unknown with respect to Teff flour. For example, if the falling number for rye flour described in Haarasilta were to be used for Teff flour, even assuming, *inter alia*, that one of ordinary skill would know how to produce such a Teff flour, the result would be a poor quality baked good that suffers from being very dense, and having poor taste and texture characteristics.

Haarasilta also fails to teach or suggest how one of ordinary skill in the art might arrive at a particular falling number for a Teff flour. At most, Haarasilta appears to indicate that gluten based flours with particular falling numbers might be selected for different baking processes or results, but does not indicate how one of ordinary skill might produce flours with a particular falling number. That is, Haarasilta apparently assumes that gluten-based flours with particular falling numbers are available for selection in various baking processes. However, this assumption is not valid as applied to the invention recited in claim 1 of the present application, since Teff flour with a high enough falling number to produce high quality baked goods was unknown and unavailable prior to the present invention. Indeed, it was unknown how to achieve such a falling number in Teff grain or flour.

Accordingly, it cannot be said that the combination of Kindie and Haarasilta teach or even suggest a falling number range of a grain belonging to the genus *Eragrostis* as recited in claim 1 of the present application. Because the falling number of Teff flour was not known to be a parameter that would contribute to producing a high quality baking product, and because Teff flour with a sufficiently high falling number was unknown and unavailable prior to the present invention, the combination of Kindie and Haarasilta do not teach or suggest the invention recited in claim 1 of the present application, which calls for Teff flour with a falling number of at least 250. Thus, a person of ordinary skill in the relevant art would be unaware of the falling number recited in claim 1 for a flour of a grain belonging to the genus *Eragrostis*, notwithstanding the disclosures of Kindie and Haarasilta.

In addition, it would not be obvious to combine the references of Kindie and Haarasilta, especially when the cited references are considered as a whole as is required in a consideration of obviousness. For example, the entire Kindie reference is directed to an apparatus for flat leavened bread such as Ethiopian Injera bread. The disclosure by Haarasilta is directed to improving a production process of baked products that have lower water concentrations to produce "dry cereal products." Haarasilta discusses only flours containing gluten and the different additions of enzymes to the different flours to reduce the needed moisture concentration in the baking dough. The dough preparations described by Haarasilta would not work properly in the apparatus described by Kindie, since the Kindie apparatus is specifically designed for flat leavened bread including Ethiopian Injera bread, the batter for which can be dispensed onto a cooking surface in a liquid batter form. The dough described by

Haarasilta is physically laid out, permitted to rise, and then baked. Accordingly, while Haarasilta calls for a dough with reduced moisture content, Kindie describes a breadmaking apparatus using high moisture content batter that is dispensed as a liquid. Because the disclosures by Kindie and Haarasilta may not be combined to produce a workable result, or without changing the principal of operation described in either reference, it would not be obvious to combine the references, especially when taken in their entirety. See MPEP § 2143.01 (V)-(VI)

Moreover, because there is no teaching or suggestion in the Haarasilta reference regarding a flour of a grain belonging to the genus *Eragrostis*, and because falling numbers vary significantly depending on the desired process and type of flour, e.g., gluten containing rye and wheat, it cannot be said that Kindie and Haarasilta, taken alone or in proper combination, disclose or suggest a flour as recited in claim 1 of the present application.

The Office Action indicates that the falling number recited in claim 1 is within a range that can be determined by routine experimentation since "the general conditions of the claims are discloses in the prior art." As noted above, neither Kindie nor Haarasilta disclose, or even suggest, a falling number range for a flour of a grain belonging to the genus *Eragrostis*. The Office Action apparently notes that Teff flour typically has a falling number of 300, citing the NPL reference entitled Teff bv.

As noted in the Declaration accompanying this response, the cited Teff bv reference is not prior art in accordance with the first "Graham" factor listed on page 5 of the Office Action. Teff bv has a publication date after the filing date accorded to the present application, and was produced by the Dutch company Teff bv, which was at the moment of publication majority owned by the

Applicant. As noted in the Declaration attached with this response, the Teff bv reference describes characteristics of Teff derived directly from the present invention, as published on behalf of the Applicant. Therefore, Teff bv does not provide evidence of inherent characteristics of Teff flour prior to the present invention.

Indeed, prior to the present invention, Teff flour had a maximum falling number less than 250, typically in the range of 140-180. Accordingly, the range for a falling number recited in claim 1 could not be obtained through routine experimentation, and thus would not be obvious to one of ordinary skill in the art. As the Declaration accompanying this response makes clear, the research conducted into identifying the falling number and particle (pore) size of Teff flour as significant to producing high quality baked goods is anything but routine. Moreover, determining how to produce Teff flour with a desired falling number is not disclosed or suggested in any of the cited references, taken alone or in proper combination.

For at least the above reasons, claim 1 is patentable over the cited combination of Kindie and Haarasilta, whether taken alone or in proper combination. Accordingly, the rejection of claim 1 under 35 U.S.C. section 103(a) over Kindie in view of Haarasilta is overcome, and Applicant respectfully requests that it be reconsidered and withdrawn, and that claim 1 be allowed.

Claims 4, 8-10, 15-23, 29, 39-41 and 45-48 ultimately depend from claim 1, and should be allowable over the cited combination of Kindie and Haarasilta for at least the reasons that claim 1 is allowable over the combination, as well as because of the further limitations recited in each of the dependent claims. Accordingly, Applicant respectfully requests that the rejection of claims 4, 8-

10, 15-23, 29, 39-41 and 45-48 under 35 U.S.C. § 103(a) over Kindie in view of Haarasilta be reconsidered and withdrawn.

Regarding claim 27, none of the cited references disclose, or even suggest, the preparation of a food product from unground grain belonging to the genus *Eragrostis*. Furthermore, none of the cited references, taken alone or in proper combination, disclose, or even suggest, a falling number of the grain at a moment of preparation being at least 250. The Office Action states that claim 27 is rejected for the same reasons applied regarding claim 1, and Applicant submits that claim 27 is non-obvious over Kindie and Haarasilta for at least the same reasons that claim 1 is non-obvious over that cited combination. Accordingly, claim 27 is patentable over the cited combination of Kindie and Haarasilta, taken alone or in proper combination. In addition, claims 62-65 depend from claim 27, and should be allowable for at least the reasons that claim 27 is allowable over the cited combination of Kindie and Haarasilta, as well as because of the further limitations recited in each dependent claim. Accordingly, Applicant respectfully requests that the rejection of claims 27 and 62-65 under 35 U.S.C. § 103(a) over Kindie in view of Haarasilta be reconsidered and withdrawn.

Regarding the rejections of claims 8-9, the explanation of the basis for the rejections appears to be drawn from the NPL references referred to as Teff Uncooked or Teff-Nutrition Data, Eragrain Teff and Teff bv, which are not prior art to the claims of the present application, since their apparent critical dates fall well after the priority date of the present application. In addition, the cited evidentiary references of Teff-Nutrition Data (Teff uncooked), Eragrain Teff and Teff bv are the product of the inventor or companies under control of the Applicant, and disclose



data that Applicant developed in the course of commercializing the present invention. That is, the information provided in the cited references of Teff-Nutrition Data (Teff uncooked), Eragrain Teff and Teff bv result directly from the invention of the present application, and was not known or available prior to the invention of the present application. Therefore, these evidentiary references do not discuss inherent characteristics of Teff flour that existed prior to the present invention. Accordingly, it would not have been obvious to one of ordinary skill in the art at the time of the invention to obtain the invention recited in claims 8-9 based on the publications referred to as Teff-Nutrition Data (Teff uncooked), Eragrain Teff and Teff bv.

The Office Action indicates the following claim rejections under 35 U.S.C. § 103(a) based on various combinations of cited art with the combination of Kindie and Haarasilta.

Claim 14 is rejected over Kindie and Haarasilta and further in view of the NPL document entitled Celiac Recipes.

Claim 24 is rejected over Kindie and Haarasilta and further in view of the NPL document entitled Teff Pasta.

Claims 25-26 are rejected over Kindie and Haarasilta and further in view of Lee et al. (US Pat. No. 3,843,827).

Claims 28 and 75 are rejected over Kindie and Haarasilta and further in view of Slimak (US Pat. No. 4,911,943).

Claims 2-3, 5-6 and 49-53 are rejected over Kindie and Haarasilta and further in view of the NPL document Stallknecht et al. entitled "Teff: Food Crop for Humans and Animals," ("Stallknecht").

Claims 7, 30, 42, 54-55 and 66-68 are rejected over Kindie and Haarasilta and Stallknecht and further in view of Otsubo (US Pat. No. 5,130,158).

Claims 11-13, 31-32, 43-44, 56-61 and 69-74 are rejected over Kindie and Haarasilta and Stallknecht and Otsubo and further in view of the NPL document entitled "Science of Bread: Ethiopian Injera Bread," ("Science of Bread ").

Claims 33-38 are rejected over Kindie and Haarasilta and Stallknecht and Otsubo and Science of Bread and further in view of Celiac Recipes.

Without acceding to the correctness of the above rejections, Applicant respectfully traverses each of the above-listed rejections. In addition, Applicant reserves the right to contest the conclusions of obviousness or notice of evidence taken by the Examiner with respect to the above rejections.

Each of the above rejected claims depends from claim 1, which patentably distinguishes over the combination of Kindie and Haarasilta for at least the reasons discussed above. The additional cited references do not cure the deficiencies noted above with respect to the Kindie and Haarasilta references as applied to claim 1. Accordingly, claims 2-3, 5-7, 11-14, 24-26, 28, 31-38, 42-44, 49-61 and 66-74 also patentably distinguish over the cited combination of Kindie and Haarasilta, as well as the additional cited references listed above, for at least the reasons that claim 1 patentably distinguishes over those reference and also because of the further recitations found in each of the above-listed dependent claims. Accordingly, claims 2-3, 5-7, 11-14, 24-26, 28, 31-38, 42-44, 49-61 and 66-74 are allowable over the combination of Kindie, Haarasilta and the additional above cited references, taken alone or in proper combination. In addition, Applicant notes that the Office Action relies on the evidence provided by the cited art referred to as Teff-Nutrition Data, Eragrain Teff and Teff bv, referring to these evidentiary

references as providing information about the inherent characteristics of Teff flour. As discussed above, the Declaration accompanying this response notes that the content of Teff-Nutrition Data, Eragrain Teff and Teff bv is derived from the present Applicant and present inventor, based on research conducted on the inventive subject matter. The inventive subject matter, as detailed in the Declaration, was unknown or unavailable to those of ordinary skill in the relevant art prior to the present invention, and was not inherent in Teff flour prior to the development of the present invention. Therefore, the basis for the rejection of dependent claims 2-3, 5-7, 11-14, 24-26, 28, 31, 38, 42-44, 49-61 and 66-74 is inappropriate as being derived from non prior art publications that do not disclose inherent characteristics of Teff flour prior to the present invention. Accordingly, these dependent claims recite patentable subject matter over each of the above cited combinations of references, as well as over the references taken by themselves. Applicant therefore respectfully submits that the rejection of claims 2-3, 5-7, 11-14, 24-26, 28, 31-38, 42-44, 49-61 and 66-74 under 35 U.S.C. § 103(a) over Kindie and Haarasilta in view of each of the combinations of the additional cited references listed above is overcome, and respectfully requests that it be reconsidered and withdrawn.

#### CONCLUSION

In view of the above amendments and discussion, Applicant respectfully submits that the application is now in condition for allowance, and earnestly solicits notice to that effect. The Examiner is encouraged to telephone the undersigned attorney to

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discuss any matter that would expedite allowance of the present application.

Respectfully submitted,  
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